

MarinTrust Whole fish fishery assessment criteria

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Version control and available language(s)

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Version control

Date	Issue	Amendment	Authorised by
April 2024	V3.01	Correction to a cross-referencing error in clause 1.3 Correction of terminology in clauses 1.3.2 and 1.4.2	Francisco Aldon, CEO
October 2023	V3.0	Whole fish fishery assessment criteria. Revision to Management and Ecosystem sections. Restructure, introduce subcriteria. General revisions to improve clarity and consistency.	Governing Body Committee

Available language(s)

The official version of this document is English. MarinTrust may translate this document into additional languages as necessary. Translations will be available on the MarinTrust website. In case of any inconsistencies or discrepancies between the available translation(s) and the English version, the online English version (in PDF format) will prevail.



Foreword

MarinTrust1 is the leading independent business to business certification programme for the marine ingredients value chain. Responsible sourcing and manufacturing is vital if marine ingredients are to remain a relevant ingredient in feed for culture, agriculture, pet care and directly in the production of consumer products, including cosmetics and nutraceuticals. Fishmeal and fish oil make up the largest share of marine ingredients today, however all marine ingredients are included in MarinTrust's scope.

To enable stakeholders to credibly demonstrate the commitment to responsible practice in areas of feed safety, raw material procurement, delivery, and throughout the production process, MarinTrust developed a robust Certification Programme, consisting of three main components:

The MarinTrust Global Standard for Responsible Supply of Marine Ingredients: The verification and certification of marine ingredients factories that source their raw material from approved fisheries and by-product species.

The MarinTrust Chain of Custody (CoC) Standard: The verification and certification of the chain of custody for marine ingredients (products) that come from MarinTrust certified factories along the value chain to the customer.

The Improver Programme: The verification and approval of marine ingredients factories that source their raw material from accepted MarinTrust Improver fisheries.

The initial MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the 'Standard') was finalised and the programme opened for applications in October 2009, with the first factory receiving IFFO RS (now known as MarinTrust) certification in February 2010. Version 2.0 was launched in July 2017.

The Standard and raw material (whole fish and by-product) assessment requirements have since been regularly revised in line with relevant international norms, such as those set by the International Organisation for Standardization (ISO/IEC 170652, ISO/IEC 170673) and the International Social and Environmental Accreditation and Labelling (ISEAL)4. This ongoing process ensures that the Standard remains accessible, credible, and relevant to industry needs, and in particular that the assessment process continues to be robust.

Revisions are undertaken by a series of expert committees within the MarinTrust governance structure5. These committees represent the full marine ingredient value chain, including marine ingredient producers, feed processors, fisheries and aquaculture standard holders and retailers as well as fisheries experts, and non-governmental organisations (NGOs).

¹ The MarinTrust programme is an initiative of Marine Ingredients Certifications Ltd. which operates as MarinTrust.

²www.iso.org/standard/46568.html

³ www.iso.org/standard/55087.html

⁴ www.isealalliance.org

⁵ www.marin-trust.com/about-us/governance-structure



Introduction

Governance

The MarinTrust programme is overseen by the MarinTrust Governing Body Committee (GBC), which is responsible for the continued advancement of the MarinTrust standards to ensure they remain both credible and relevant with respect to the stated objectives. The MarinTrust Fisheries Development Oversight Committee is responsible for the continued advancement of the MarinTrust raw material assessment (whole fish and by-product) requirements.

The MarinTrust Governing Body Committee has endorsed Version 3.0 of the MarinTrust whole fish fishery assessment criteria. Throughout the development of Version 3.0, the needs of the marine ingredients value chain and interested parties have been at the centre to ensure effective representation throughout.

About this document

This document defines what shall be achieved for the approval of whole fish raw material against the 'MarinTrust Global Standard for Responsible Supply of Marine Ingredients Version 3.0' (the 'Standard').

Responsible raw material sourcing

As an essential prerequisite to the audit against the MarinTrust Standard, facilities must demonstrate that they source approved raw materials (whole fish or by-products) that are:

- Not from Illegal, unreported and unregulated (IUU) fishing activity
- Not an endangered species
- For whole fish, from responsibly managed fisheries aligned with the FAO Code of Conduct for Responsible Fisheries

Scope and applicability

This document outlines the assessment criteria for responsibly sourcing wild caught whole fish raw materials used to produce MarinTrust certified marine ingredients.

These criteria apply to whole fish from human consumption sources as defined in the MarinTrust Standard.

Source fisheries cannot make a claim against the MarinTrust Standard.

The fishery under assessment is defined at a minimum by the wild capture species, fishing area and fishing gear.

Normative references

This document draws upon the following normative documents:

- United Nations Convention on the Law of the Sea. 1982.
- FAO Code of Conduct for Responsible Fisheries (FAO CCRF). 1995.
- FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries. Rev 1, 2009.
- FAO. Implementation of the International Plan of Action to Prevent, Deter and Eliminate



- Illegal, Unreported and Unregulated Fishing. FAO Technical Guidelines for Responsible Fisheries. No. 9. 2002.
- Council Regulation (EC) No. 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No. 2847/93, (EC) No. 1936/2001 and (EC) No. 601/2004 and repealing Regulations (EC) No. 1093/94 and (EC) No. 1447/1999.

Definitions

Definitions and terms are published on the MarinTrust website.

Third-party assessments

Applicant facilities shall demonstrate compliance with the MarinTrust Global Standard for Responsible Supply of Marine Ingredients to become a 'certificate holder' under the MarinTrust programme. Fishery assessments are a pre-requisite to an audit. Fishery assessments are conducted by a third-party, qualified Certification Body accredited to ISO/IEC 17065⁶.

The specified frequency of assessments is defined in the Quality Management System, available on the MarinTrust website.

Registered Certification Bodies

A list of third-party accredited Certification Bodies to undertake the process of auditing against the MarinTrust Standard and issuing certificates can be found on the MarinTrust website.

Further information

Further information regarding application, rules and regulations of the programme can be obtained from MarinTrust and/or the approved certification bodies listed on the MarinTrust website.

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⁶ www.iso.org/standard/46568.html



Whole fish fishery assessment criteria

Whole fish fishery assessment requirements

- 1.1. Species cannot be approved for use as a MarinTrust raw material if the species:
 - 1.1.1. Is a marine mammal, reptile, amphibian or bird, or
 - 1.1.2. Stems from fisheries that use dynamiting, poisoning and other comparable destructive fishing practices, or
 - 1.1.3. Appears in CITES Appendix 1 or 2^7 , or
 - 1.1.4. Is categorised as Endangered or Critically Endangered on the IUCN Red List⁸.
- 1.2. No materials from illegal, unreported and unregulated (IUU) fishing activity shall be used as MarinTrust raw material.
- 1.3. Total annual catch estimates shall be used to identify the species composition and to determine the relevant species category against which each species in the fishery should be assessed (clause 1.4).
 - 1.3.1. Endangered, threatened, or protected species (ETP species) are considered separately (under the Ecosystem section), irrespective of their frequency of occurrence in the catch.
 - 1.3.2. Species which make up less than 0.1% of catches do not need to be assessed.
- 1.4. The species in the catch are assessed as follows:
 - 1.4.1. **Type 1 Species** can be considered the 'target' or 'main' species in the fishery under assessment. They make up the bulk of catch and are subjected to a detailed assessment.
 - 1.4.1.1. Type 1 species must represent at least 95% of the total annual catch.
 - 1.4.1.2. If a species-specific management regime is in place for a Type 1 species, it shall be assessed under Category A.
 - 1.4.1.3. If there is no species-specific management regime in place for a Type 1 species, it shall be assessed under Category B.
 - 1.4.2. **Type 2 Species** can be considered the 'non-target' species in the fishery under assessment. They comprise a small proportion of the annual catch and are subjected to a relatively high-level assessment.
 - 1.4.2.1. Type 2 species may represent a maximum of 5% of the annual catch.
 - 1.4.2.2. If a species-specific management regime is in place for a Type 2 species, it shall be assessed under Category C.
 - 1.4.2.3. If there is no species-specific management regime in place for a Type 2 species, it shall be assessed under Category D.
- 1.5. For a whole fish fishery to be MarinTrust approved, all assessment criteria shall achieve a 'pass' determination.
 - 1.5.1. If a single criterion fails, the whole fish fishery shall **not** be approved.
 - 1.5.1.1. It is not expected that sub-criteria are assessed independently of the main

⁷ Convention on International Trade in Endangered Species of Wild Fauna and Flora. CITES database: Species+ (speciesplus.net)

⁸ International Union for Conservation of Nature (IUCN) Red List of Threatened Species: https://www.iucnredlist.org/



criterion, they not given a 'pass' or 'fail' determination.

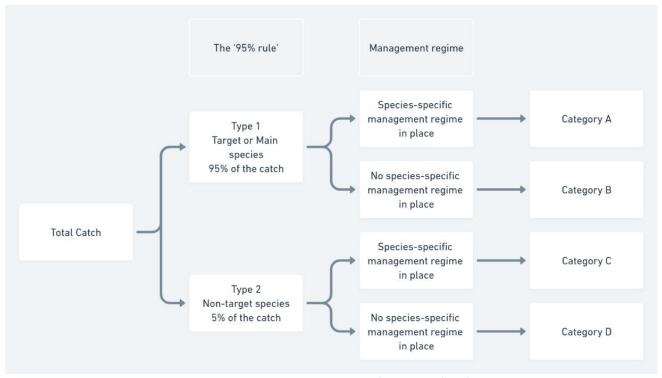


Figure 1 - Decision tree to support the species categorisation for whole fish fishery assessment



Whole fish fishery assessment criteria

1. Management requirements

This section assesses the general management regime applied to the fishery under assessment.

- 1.6. All management criteria must be met (pass) for a fishery to pass the Management Requirements.
 - 1.6.1. The sub-criteria offer a structured evidence base to demonstrate that the fishery sufficiently meets the management criteria. It is not expected that sub-criteria are assessed independently of the main criterion.

M1 Management Framework

M1.1 There is an organisation responsible for managing the fishery.

In reaching a determination for M1.1, the assessor should consider if the following is in place:

- M1.1.1 The management and administration organisations within the fishery are clearly identified.
- M1.1.2 The functions and responsibilities of the management organisations include the overall regulation, administration, science and data collection and enforcement roles, and are documented and publicly available.
- M1.1.3 Fishers have access to information and/or training materials through nationally recognised organisations.
- M1.2 Fishery management organisations are legally empowered to take management actions.

In reaching a determination for M1.2, the assessor should consider if the following is in place:

- M1.2.1 There are legal instruments in place to give authority to the management organisation(s) which can include policies, regulations, acts or other legal mechanisms.
- M1.2.2 Vessels wishing to participate in the fishery must be authorised by the management organisation(s).
- M1.2.3 The management system has a mechanism in place for the resolution of legal disputes.
- M1.2.4 There is evidence of the legal rights of people dependent on fishing for food or livelihood.
- M1.3 There is an organisation responsible for collecting data and (scientifically) assessing the fishery.

In reaching a determination for M1.3, the assessor should consider if the following is in place:

- M1.3.1 The organisation(s) responsible for collecting data and assessing the fishery is/are clearly identified.
- M1.3.2 The management system receives scientific advice regarding stock, non-target species and ecosystem status.
- M1.3.3 Scientific advice is independent from the management organisation(s) and transparent in its formulation through a clearly defined process.



- M1.4 The fishery management system is based on the principles of sustainable fishing and a precautionary approach.
- In reaching a determination for M1.4, the assessor should consider if the following is in place:

 M1.4.1 A policy or long-term management objective for sustainable harvesting based on the best scientific evidence and a precautionary approach is publicly available and
- M1.5 There is a clearly defined decision-making process which is transparent, with processes and results made publicly available.
- In reaching a determination for M1.5, the assessor should consider if the following is in place:
 - M1.5.1 There is participatory engagement through which fishery stakeholders and other stakeholders can access, provide information, consult with, and respond to, the management systems' decision-making process.
 - M1.5.2 The decision-making process is transparent, with results made publicly available.
 - M1.5.3 The fishery management system is subject to periodic internal or external review to validate the decision-making process, outcomes and scientific data.

M2 Surveillance, Control and Enforcement

implemented for the fishery.

- M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.
- In reaching a determination for M2.1 the assessor should consider if the following is in place:
 - M2.1.1 There is an organisation responsible for monitoring compliance with specific monitoring, control and surveillance (MCS) mechanisms in place.
 - M2.1.2 There are relevant tools or mechanisms used to minimise IUU fishing activity.
 - M2.1.3 There is evidence of monitoring and surveillance activity appropriate to the intensity, geography, management control measures and compliance behaviour of the fishery.
- M2.2 There is a framework of sanctions which are applied when infringements against laws and regulations are discovered.
- In reaching a determination for M2.2, the assessor should consider if the following is in place:
 - M2.2.1 The laws and regulations provide for penalties or sanctions that are adequate in severity to act as an effective deterrent.
 - M2.2.2 There is no evidence of systematic non-compliance.
- M2.3 There is substantial evidence of widespread compliance in the fishery, and no substantial evidence of IUU fishing.
- In reaching a determination for M2.3, the assessor should consider if the following is in place:
 - M2.3.1 The level of compliance is documented and updated routinely, statistically reviewed and available.
 - M2.3.2 Fishers provide additional information and cooperate with management/enforcement agencies/organisations to support the effective management of the fishery.



M2.3.3 The catch recording and reporting system is sufficient for effective traceability of catches per vessel and supports the prevention of IUU fishing.

2. Species requirements

Each species in the catch is subject to an assessment in this section (see clauses 1.2 and 1.3). Category A species

- 2.1. All clauses must be met for a species to pass the Category A assessment.
 - 2.1.1. If a species fails any of the Category A clauses, it should be re-assessed as a Category B species.

A1 Data collection

- A1.1 Landings data are collected such that the fishery-wide removals of this species are known.
- A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.

A2 Stock assessment

- A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock) and considers all fishery removals and the biological characteristics of the species.
- A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.
- A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.
- A2.4 The assessment is subject to internal or external peer review.
- A2.5 The assessment is made publicly available.

A3 Harvest strategy

- A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.
- A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.
- A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).

A4 Stock status

A4.1 The stock is at or above the target reference point; OR IF NOT: the stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure; OR IF NOT: the stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.



Category B species

Category B species are assessed using a risk-based approach.

- 2.2. The risk matrix in Table B(a) shall be used when assessing a Category B species when estimates of Fishing mortality (F), Biomass (B) and reference points are available.
- 2.3. The risk matrix in Table B(b) shall be used when assessing a Category B species when no reference points are available.

Table B(a) – Biomass/fishing pressure risk assessment.

	Fishery removals are prohibited	Fishing mortality is below MSY or target reference point	Fishing mortality is around MSY or target reference point, or below the long-term average	Fishing mortality is above the MSY or target reference point, or around the long-term average	Fishing mortality is above the limit reference point or above the long-term average (stock is subject to overfishing)
Biomass is above MSY / target reference point	Pass	Pass	Pass	Fail	Fail
Biomass is below MSY / target reference point, but above limit reference point	Pass, but re- assess when fishery removals resume	Pass	Fail	Fail	Fail
Biomass is below limit reference point (stock is overfished)	Pass, but re- assess when fishery removals resume	Fail	Fail	Fail	Fail
Biomass is significantly below limit reference point (recruitment impaired)	Fail	Fail	Fail	Fail	Fail



Table B(b) – Biomass resilience ratings, assessing Category B species when no reference points available.

Key: B = current biomass; B_{av} = long-term average biomass; F = current fishing mortality; F_{av} = long-term average fishing mortality.

101111111111111111111111111111111111111				
$B > B_{av}$ and $F < F_{av}$	Pass	Pass	Pass	Fail
$B > B_{av}$ and F or F_{av}	Pass	Pass	Fail	Fail
unknown				
$B = B_{av}$ and $F < F_{av}$	Pass	Pass	Fail	Fail
$B = B_{av}$ and F or F_{av}	Pass	Fail	Fail	Fail
unknown				
$B > B_{av}$ and $F > F_{av}$	Pass	Fail	Fail	Fail
B < B _{av}	Fail	Fail	Fail	Fail
B unknown	Fail	Fail	Fail	Fail
Resilience	High	Medium	Low	Very Low

Category C species

- 2.4. All clauses must be met for a species to pass the Category C assessment.
 - 2.4.1. Where a species fails this Category C clause, it should be assessed as a Category D species instead, except if there is evidence that the species is currently below the limit reference point.
- C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process OR are considered by scientific authorities to be negligible.
- C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

Category D species

Category D species are assessed against a risk-based approach.

- 2.5. The Productivity-Susceptibility Analysis (PSA) in Table D(a) shall be used when assessing Category D species.
- 2.6. Table D(b) shall be used to calculate the overall PSA risk rating for the Category D species.
- 2.7. Should the PSA indicate a high risk, further assessment shall be completed against the requirements in Table D(c).



Table D(a) - Productivity Susceptibility Analysis (PSA) and scores

PSA productivity attr	ibutes and scores for fish	and inv	ertebrates		
Productivity attributes	High productivity (Low risk, score = 1)		m productivity um risk, score = 2)	Low productivity (high risk, score = 3)	
Average age at maturity	<5 years	5-15 y	ears	>15 years	
Average maximum age	<10 years	10-25	years	>25 years	
Fecundity	>20,000 eggs per year	100-20 year),000 eggs per	<100 eggs per year	
Average maximum size	<100 cm	100-30	00 cm	>300 cm	
Average size at maturity	<40 cm	40-200 cm		>200 cm	
Reproductive strategy	Broadcast spawner	Demei	sal egg layer	Live bearer	
Mean Trophic Level (MTL)	<2.75	2.75-3	.25	>3.25	
Density dependence (to be used when scoring invertebrate species only)	Compensatory dynamics at low population size demonstrated or likely	No depensatory or compensatory dynamics demonstrated or likely		Depensatory dynamics at low population sizes (Allee effects) demonstrated or likely	
PSA susceptibility att	ributes and for fish and in	nvertebr			
			Medium		

1 37 (Sasceptibility attributes			0.00	5		
Susceptibility attributes		w susceptibility ow risk, score = 1)	sus	edium sceptibility edium risk, score =		
Areal overlap (availability): Overlap of the fishing effort with a species concentration of the stock	<10	0% overlap	10	-30% overlap	>3	0% overlap
Encounterability: The position of the stock/ species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	fisl	w overlap with hing gear (low counterability)		edium overlap with hing gear	fisl en de	gh overlap with hing gear (high counterability); fault score for get species
Selectivity of gear type: Potential of the gear to retain species	а	Individuals < size at maturity are rarely caught	а	Individuals < size at maturity are regularly caught	а	Individuals < size at maturity are frequently caught



	b	Individuals < size at maturity can escape or avoid gear	b	Individuals < half the size at maturity can escape or avoid gear	b	Individuals < half the size at maturity are retained by gear
Post-capture mortality (PCM): The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	escape or avoid		rel ca 333 are an obb that rel co hig se score	idence of some leased post- pture and survival: -66% of animals e returned alive d survive the counter. Where servers can verify at 33-66% are leased alive in mbination with a gh risk score for lectivity, the PCM ore may be duced to a medium k score (2).	ma	tained species or ajority dead when eased

Table D(b) - PSA risk rating table

Table D(b) - 13A fisk fatting table							
	Average Susceptibility Score	1 - 1.75	1.76 - 2.24	2.25 - 3			
	1 - 1.75	Pass	Pass	Pass			
Average Productivity Score	1.76 - 2.24	Pass	Pass	Further checks – criteria in Table D(c)			
	2.25 - 3	Pass	Further checks – criteria in Table D(c)	Further checks – criteria in Table D(c)			

Table D(c) - Further assessment for Category D species

- D1. The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.
- D2. There is no substantial evidence that the fishery has a significant negative impact on the species.



3. Ecosystem requirements

This section assesses the impacts that the fishery under assessment may have on key ecosystem components: ETP species, habitat and the wider ecosystem.

- 3.1. All ecosystem criteria must be met (pass) for a fishery to pass the Ecosystem Requirements.
 - 3.1.1. The sub-criteria offer a structured evidence base to demonstrate that the fishery sufficiently meets the ecosystem criteria, it is not expected that sub-criteria are assessed independently of the main criterion.

E1 Impact on Endangered, Threatened or Protected species (ETP species)

E1.1 Information on interactions between the fishery and ETP species is collected.

In reaching a determination for E1.1, the assessor should consider if the following is in place:

- E1.1.1 ETP species which may be directly affected by the fishery have been identified.
- E1.1.2 Interactions between the fishery and ETP species are recorded and reported to management organisations.
- E1.1.3 Collection and analysis of ETP information is adequate to provide a reliable indication of the impact the fishery has on ETP species.
- E1.2 The fishery has no significant negative impact on ETP species.

In reaching a determination for E1.2, the assessor should consider if the following is in place:

- E1.2.1 The information collected in relation to E1.1.3 indicates that the fishery does not have a significant negative impact on ETP species.
- E1.3 There is an ETP management strategy in place for the fishery.

In reaching a determination for E1.3, the assessor should consider if the following is in place:

- E1.3.1 There are measures applied to the fishery which are designed to manage the impacts of the fishery on ETP species.
- E1.3.2 The measures are considered likely to achieve the objectives of regional, national and international legislation relating to ETP species.

E2 Impact on the habitat

E2.1 Information on interactions between the fishery and marine habitats is collected.

In reaching a determination for E2.1, the assessor should consider if the following is in place:

- E2.1.1 Habitats which may be directly affected by the fishery have been identified, including any habitats which may be particularly vulnerable.
- E2.1.2 Information on the scale, location and intensity of fishing activity relative to habitats is collected.
- E2.1.3 Collection and analysis of habitat information is adequate to provide a reliable indication of the impact the fishery has on marine habitats.
- E2.2 The fishery has no significant impact on marine habitats.

In reaching a determination for E2.2 the assessor should consider if the following is in place:



- E2.2.1 The information collected in relation to E2.1.3 indicates that the fishery does not have a significant negative impact on marine habitats.
- E2.3 There is a habitat management strategy in place for the fishery.

In reaching a determination for E2.3, the assessor should consider if the following is in place:

- E2.3.1 There are measures applied to the fishery which are designed to manage the impact of the fishery on marine habitats.
- E2.3.2 The measures are considered likely to prevent the fishery from having a significant negative impact on marine habitats.

E3 Impact on the ecosystem

E3.1 Information on the potential impacts of the fishery on marine ecosystems is collected.

In reaching a determination for E3.1, the assessor should consider if the following is in place:

- E3.1.1 The main elements of the marine ecosystems in the area(s) where the fishery takes place have been identified.
- E3.1.2 The role of the species caught in the fishery within the marine ecosystem is understood, either through research on this specific fishery or inferred from other fisheries.
- E3.1.3 Collection and analysis of ecosystem information is adequate to provide a reliable indication of the impact the fishery has on marine ecosystems.
- E3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.

In reaching a determination for E3.2, the assessor should consider if the following is in place:

- E3.2.1 The information collected in relation to E3.1.3 indicates that the fishery does not have a significant negative impact on marine ecosystems.
- E3.3 There is an ecosystem management strategy in place for the fishery.

In reaching a determination for E3.3,. the assessor should consider if the following is in place:

- E3.3.1 There are measures applied to the fishery which are designed to manage the impacts of the fishery on marine ecosystems.
- E3.3.2 The measures are considered likely to prevent the fishery from having a significant negative impact on marine ecosystems.